

Key Site LOUISVILLE



Surface

Surveillance

ADS-B

AUTOMATIC DEPENDENT SURVEILLANCE - BROADCAST

Air Traffic Control

Traffic Information

Flight Information



Louisville

Service Volume, Louisville Terminal Radar Approach Control and Air Traffic Control Tower Service Delivery Point

Infrastructure <ul style="list-style-type: none"> 2 ADS-B radio stations for terminal coverage 4 ADS-B radio stations for surface coverage of Louisville International Airport 	Service Volumes <ul style="list-style-type: none"> Terminal service volume is 60nm radius around airport <ul style="list-style-type: none"> Floor of coverage based on Louisville's secondary surveillance radar coverage and minimum vectoring altitude; ceiling is 25,000 ft. Surface service volume is 5nm radius around airport <ul style="list-style-type: none"> Floor is surface movement area Ceiling is 200 ft. above ground level
Services <ul style="list-style-type: none"> Air traffic control separation services <ul style="list-style-type: none"> ADS-B / ADS-R Flight Information Broadcast Services (FIS-B) Traffic Information Broadcast Services (TIS-B) <ul style="list-style-type: none"> Terminal area will receive the TIS-B source from the secondary surveillance radar Surface area will receive the TIS-B source from the Airport Surface Detection Equipment - Model X (ASDE-X) Interface Protocols <ul style="list-style-type: none"> Asterix Category 33 for position data reports and Asterix Category 023 service status reports 	Service Delivery <ul style="list-style-type: none"> Primary service delivery point <ul style="list-style-type: none"> CARTS automation system at Louisville Terminal Radar Approach Control Other service delivery points <ul style="list-style-type: none"> Indianapolis Center Louisville Air Traffic Control Tower for ASDE-X Surveillance and Broadcast Services monitor receives service status reports and equipment status reports, as well as ADS-B, TIS-B and FIS-B data FAA monitoring at the William J. Hughes Technical Center and the Aeronautical Center Service certification is at the service delivery point for each automation platform Delivery of TIS-B and FIS-B to aircraft equipped with ADS-B avionics and a multi-function display Aircraft receiving TIS-B must be equipped with ADS-B 'Out' and 'In'; FIS-B requires ADS-B 'In'
Applications <ul style="list-style-type: none"> Air traffic control surveillance Enhanced visual acquisition Enhanced visual approaches Airline operations center merging and spacing Cockpit display of tactical information-assisted visual separation Final approach and runway occupancy Airport surface situational awareness (includes vehicles) Conflict detection Weather and NAS situational awareness 	Benefits <ul style="list-style-type: none"> More efficient spacing on approach in visual meteorological conditions Continuation of visual approaches in marginal conditions Increased ability to perform continuous descent approaches (merging and spacing with surveillance data sent to airline operations center) FIS-B / TIS-B <ul style="list-style-type: none"> Reduce risk of midair collisions Reduce risk of weather-related accidents More efficient routes in adverse weather Improved situational awareness
Schedule <ul style="list-style-type: none"> Initial Operating Capability (IOC) Completed November 2009 	02.2010.rev2

